

NOT FOR PUBLICATION

**UNITED STATES DISTRICT COURT
DISTRICT OF NEW JERSEY**

DANIEL ORTIZ,	:	
	:	
Plaintiff	:	Civil No. 03-3657 (FLW)
	:	
v.	:	MEMORANDUM OPINION
	:	
YALE MATERIALS HANDLING CORP.,	:	
	:	
Defendant	:	
	:	

Daniel Ortiz (“Plaintiff” or “Ortiz”) brings this action against Yale Materials Handling Corp. (“Defendant” or “Yale”) for injuries that Plaintiff sustained while operating a forklift manufactured by Defendant. Plaintiff alleges that Defendant’s forklift is defective in design because it should have had (1) a latched rear door to restrain the operator, and (2) warnings advising the operator to stay inside the operator compartment in the event of a tip-over. Defendant maintains that the design of its forklift is not defective, the forklift is safe for its intended use, and that operators who remain in the operator compartment in a tip-over are at risk for more severe injuries.

In support of its defect claim, Plaintiff seeks to introduce the testimony of one expert, John B. Severt (“Severt”), and Defendant responds with the testimony of two experts. Plaintiff has moved to strike Defendants’ experts. Defendant has moved for summary judgment, asserting that Plaintiff’s claim against it must fail because the testimony of Plaintiff’s expert is inadmissible. For the following reasons, the Court bars the proposed testimony of Plaintiff’s expert, Severt, finds that

Plaintiff's motions are now moot because without an expert to support Plaintiff's alternative design theory, Plaintiff's products liability claim against Defendant fails,¹ and thus, grants summary judgment in favor of Defendant.

I. BACKGROUND

A. The accident

The following facts are not in dispute. On November 22, 2001, in the course of his employment with IKEA, Plaintiff was operating an open back, rear entry, stand-up forklift truck (model NR045AC), which was manufactured and assembled in October 1996 by Yale.² At the time of the accident, Plaintiff was using the forklift truck in an IKEA warehouse to place a couch on a rack when the forklift tipped over and fell to the ground. There were no eyewitnesses to the accident, but Plaintiff's co-worker heard the accident, and then discovered the forklift lying on its side and Plaintiff lying beside it with his left foot pinned beneath the forklift's overhead guard. Def. Mot. Summ. J. at 2. Plaintiff testified that he tried to stay in the forklift during the tip-over, but that he "naturally fell out." Ortiz Dep. at 76. Plaintiff also testified that he had been trained to jump from the forklift in the event of a tip-over, but because there was no room between the forklift and the wall, Plaintiff testified that his "best bet was to stay inside and try to ride it down." *Id.* at 86. As a result of the accident, Plaintiff's foot was amputated, and he has accumulated substantial medical bills. See Pl. Compl. ¶ 6. According to Plaintiff, he can no longer engage in many business

¹ In addition to the motions to strike the testimony of Defendant's experts, Plaintiff filed a motion to bar the defense of comparative negligence.

² NACCO Materials Handling Group, Inc. is the successor-in-interest to Yale Materials Handling Corporation. See Def. Mot. Summ. J. at 1.

and personal activities because of the injuries from the accident. See id.

B. Procedural history

Plaintiff filed suit against Yale, the manufacturer and distributor of the forklift, asserting claims of design defect and products liability. See id. ¶ 5. Plaintiff claims that the forklift is defective in design because it lacked a latching rear door to the operator's compartment and thus failed to protect the operator in the event of a tip-over. Id. ¶¶ 3-4.

In its answer, Defendant denies the existence of a design defect and asserts that Plaintiff has failed to state a cause of action under the New Jersey Products Liability Act, 2A:58C-1 et. seq. Def. Ans. at 4. On April 7, 2005, Defendant filed a motion for summary judgment and moved to bar the proposed testimony of Plaintiff's engineering expert because such testimony does not meet the standards for admissibility set forth in Daubert v. Merrell Dow Pharmaceuticals, Inc., 509 U.S. 579 (1993).³ Def. Mot. Summ. J. at 10. On July 7, 2005, the Court held a hearing pursuant to Fed.R.Evid. 104 to determine the admissibility of Plaintiff's expert's proposed testimony.

II. DISCUSSION

To state a products liability claim in New Jersey, a plaintiff must establish "that the product was defective, that the defect existed when the product left the defendant's control, and that the defect caused injury to a reasonably foreseeable user." Milanowicz v. The Raymond Corp., 148 F.Supp.2d 525, 528 (D.N.J. 2001) (citations omitted). "Liability should be imposed only when the

³ Plaintiff moved to bar the expert testimony of Defendant's biomechanical engineer expert on March 7, 2005, and Defendant's engineering expert on March 14, 2005. However, because this Court finds that the proposed testimony of Plaintiff's expert is inadmissible, Plaintiff's claim against Defendant fails and Plaintiff's motions to bar Defendant's experts and the defense of comparative negligence are now moot.

manufacturer is responsible for the defective condition.” Id. (quoting Reiff v. Convergent Techs., 957 F. Supp. 575, 578 (D.N.J. 1997) (citations omitted)). To prove the existence of a defect, a plaintiff may rely on the testimony of an expert who has examined the product or offers an opinion on the product’s design. Lauder v. Teaneck Volunteer Ambulance Corps, 368 N.J.Super. 320, 331 (App. Div. 2004) (citing Scanlon v. General Motors Corp., 65 N.J. 582 (1974)). Alternatively, a plaintiff may produce circumstantial evidence of a defect, “such as proof of proper use, handling or operation of the product and the nature of the malfunction, [which] may be enough to satisfy the requirement that something is wrong with [the product].” Id. Where the allegedly defective product involves a complex instrumentality, a plaintiff is required to provide expert testimony. Lauder, 368 N.J.Super. at 331 (citing Rocco v. New Jersey Transit Rail Operations, Inc., 330 N.J.Super. 320, 341 (App. Div. 2000)). Expert testimony is necessary to assist the fact finder in understanding “the mechanical intricacies of the instrumentality” and in excluding other possible causes of the accident. Lauder, 368 N.J.Super. at 331 (citing Jimenez v. GNOC, Corp., 286 N.J.Super. 533, 546 (App. Div. 1996)).

A. Standard of review

Summary judgment is appropriate where there is no genuine issue as to any material fact, and the moving party is entitled to judgment as a matter of law. Fed.R.Civ.P. 56; Celotex Corp. v. Catrett, 477 U.S. 317, 323 (1986). A genuine issue of material fact is one that will permit a reasonable jury to return a verdict for the nonmoving party. Anderson v. Liberty Lobby, Inc., 477 U.S. 242, 248 (1986). However, a nonmoving party may not rest upon mere allegations, general denials, or vague statements in opposition to a summary judgment motion. Trap Rock Indus., Inc. v. Local 825, Int’l Union of Operating Engineers, 982 F.2d 884, 890-91 (3d Cir.1992) (internal

citations omitted). Instead, the nonmoving party must set forth specific facts “by means of affidavits, depositions, answers to interrogatories, or admissions ... that show there is a genuine issue for the trier of fact to resolve.” Cooper v. Cape May County Board of Social Servs., 175 F.Supp.2d 732, 741 (D.N.J. 2001) (citations omitted). If the nonmoving party’s evidence is merely colorable, or not significantly probative, summary judgment may be granted. Bowles v. City of Camden, 993 F.Supp. 255, 261 (D.N.J. 1998) (citations omitted). Conclusory allegations do not meet the non-moving party’s duty to set forth specific facts showing that a genuine issue of material fact exists and a reasonable factfinder could rule in its favor. See Ridgewood Board of Ed. v. Stokley, 172 F.3d 238, 252 (3d Cir.1999). At the summary judgment stage, it is not the role of this Court to weigh the evidence or to evaluate its credibility, but to ascertain whether there is a genuine issue for trial. See Anderson, 477 U.S. at 249. Therefore, the Court must “view the inferences to be drawn from the underlying facts in the light most favorable to the [nonmoving] party.” Curley v. Klem, 298 F.3d 271, 276-77 (3d Cir.2002) (quoting Bartnicki v. Vopper, 200 F.3d 109, 114 (3d Cir.1999)).

B. Fed.R.Evid. 702 and Daubert

In its motion for summary judgment, Yale contends that the report and proposed testimony of Plaintiff’s expert, John B. Severt, are inadmissible. The admission of expert testimony is governed by Fed.R.Evid. 702, which provides that:

If scientific, technical or other specialized knowledge will assist the trier of fact to understand the evidence or to determine a fact in issue, a witness qualified as an expert by knowledge, skill, experience, training, or education, may testify thereto in the form of an opinion or otherwise, if (1) the testimony is based upon sufficient facts or data, (2) the testimony is the product of reliable principles and methods, and (3) the witness has applied the principles and methods reliably to the facts in the case.

Fed.R.Evid. 702. “Rule 702 imposes three distinct substantive restrictions on the admission of

expert testimony: qualifications, reliability, and fit.” Crowley v. Chait, 322 F.Supp.2d 530, 535 (D.N.J. 2004) (quoting Elcock v. Kmart Corp., 233 F.3d 734, 741 (3d Cir.2000)). The Supreme Court in Daubert clarified the operation and scope of Rule 702 with regard to expert testimony. In that case, the Supreme Court held that an “expert’s opinion must be based on the ‘methods and procedures of science’ rather than on ‘subjective belief or unsupported speculation;’ the expert must have ‘good grounds’ for his or her belief.” Crowley, 322 F.Supp.2d at 535 (citing In re Paoli R.R. Yard PCB Litig., 35 F.3d 717, 742 (3d Cir.1994) (hereinafter “Paoli”) (quoting Daubert, 509 U.S. at 590)). The standards set forth in Daubert operate as a framework to ensure the relevance and reliability of expert testimony. Kumho Tire Co., Ltd. v. Carmichael, 526 U.S. 137, 151 (1999). It is the trial judge’s role to serve as the gate-keeper in scrutinizing the evidentiary relevance and reliability of the proposed expert submission. See Daubert, 509 U.S. at 588-89, 595-97.

The first step of the Rule 702 inquiry is to determine whether the expert is properly qualified. “Before an expert witness may offer an opinion pursuant to Rule 702 he must first be qualified by virtue of specialized expertise.” Elcock, 233 F.3d at 741. Rule 702 requires the expert to have “specialized knowledge” with regard to the area he is testifying about. Practical experience or academic training and credentials can form the basis of this specialized knowledge. See id. The Third Circuit has “interpreted the specialized knowledge requirement liberally, and ha[s] stated that this policy of liberal admissibility of expert testimony ‘extends to the substantive as well as the formal qualifications of experts.’ However, ‘at a minimum, a proffered expert witness ... must possess skill or knowledge greater than the average layman’” Id. (citing Waldorf v. Shuta, 142 F.3d 601, 625 (3d Cir.1998) (citations omitted)); see also Paoli, 35 F.3d at 741.

Next, the court must determine whether the expert’s testimony is reliable. Here, the court’s

inquiry must be based “solely on principles and methodology, not on the conclusions they generate.” Crowley, 322 F.Supp.2d at 539 (quoting Daubert, 509 U.S. at 595). However, because “conclusions and methodology are not entirely distinct from one another,” General Electric Co. v. Joiner, 522 U.S. 136, 146 (1997), the court must also “examine the expert’s conclusions in order to determine whether they could reliably flow from the facts known to the expert and the methodology used.” Heller v. Shaw, 167 F.3d 146, 153 (3d Cir.1999). It is the trial court’s responsibility to evaluate not only the principles and methodologies of the expert, but also whether the expert has properly applied those principles and methods to the facts of the case. Magistrini v. One Hour Martinizing Dry Cleaning, 180 F.Supp.2d 584, 595 (D.N.J. 2002) (citing Fed.R.Evid. 702).

The U.S. Supreme Court and the Third Circuit have recognized certain factors to guide a trial court’s assessment of the reliability of proffered scientific expert testimony. These factors include:

(1) whether a method consists of a testable hypothesis; (2) whether the method has been subject to peer review; (3) the known or potential rate of error; (4) the existence and maintenance of standards controlling the technique’s operation; (5) whether the method is generally accepted; (6) the relationship of the technique to methods which have been established to be reliable; (7) the qualifications of the expert witness testifying based on the methodology; and (8) the non-judicial uses to which the method has been put.

See Daubert, 509 U.S. at 593-94; Paoli, 35 F.3d at 742 n.8; Milanowicz, 148 F.Supp.2d at 531. As the Supreme Court noted in Daubert, this inquiry is a flexible one, and in this Circuit, it has been held that this list of factors is “nonexclusive” and that “each factor need not be applied in every case.” Crowley, 322 F.Supp.2d at 535 (citing Elcock, 233 F.3d at 746). Rather, the court must tailor its inquiry to the facts of each case and “should consider the specific factors identified in Daubert where [such factors] are reasonable measures of the reliability of the expert testimony.” Id. (quoting Kumho Tire, 526 U.S. at 150, 152 (noting that Daubert factors may or may not be useful depending

on “nature of the issue, the expert’s particular expertise, and the subject of his testimony”) (citations omitted)). However, the Third Circuit has also recognized that an expert’s testimony need not be flawless for it to be reliable and admissible, stating that “[t]he grounds for the expert’s opinion merely have to be good, they do not have to be perfect.” Paoli, 35 F.3d at 744.

The Supreme Court has also noted that Daubert’s general holding applies not only to scientific knowledge, but also to technical and other specialized knowledge. Crowley, 322 F.Supp.2d at 536 (citing Kumho Tire, 526 U.S. at 150). Moreover, some courts consider additional factors when determining reliability, such as: (i) whether the expert’s proposed testimony grows naturally and directly out of the research the expert has conducted independent of the litigation, see Daubert v. Merrell Dow Pharmaceuticals, Inc., 43 F.3d 1311, 1317 (9th Cir.1995), (ii) whether the expert has unjustifiably extrapolated from an accepted premise to an unfounded conclusion, see Joiner, 522 U.S. at 146), and (iii) whether the field of expertise asserted by the expert is known to reach reliable results for the type of opinion proffered by the expert, see Kumho Tire, 526 U.S. 137, 149-150 (1999)). See also Magistrini, 180 F.Supp.2d at 594-95; Fed.R.Evid.702 advisory committee’s notes. There is nothing in the Federal Rules of Evidence, Daubert, or its progeny, that “requires a district court to admit opinion evidence that is connected to existing data only by the ipse dixit of the expert. A court may conclude that there is simply too great an analytical gap between the data and the opinion proffered.” Oddi v. Ford Motor Co., 234 F.3d 136, 158 (3d Cir.2000); See also Magistrini, 180 F.Supp.2d at 595 (citing Joiner, 522 U.S. at 145-46).

The last step of a Rule 702 inquiry is to determine “fit” - whether there is a relevant “connection between the scientific research or test result to be presented and particular disputed factual issues in the case.” Milanowicz, 148 F.Supp.2d at 531 (quoting Paoli, 35 F.3d at 741-43).

“Fit” requires that the expert’s testimony not only be reliable, but that it assist the jury by providing it with relevant information for the purpose of the case. Paoli, 35 F.3d at 743.

C. Daubert hearing

The Third Circuit has established a process by which a court is to handle Daubert motions. Crowley, 322 F.Supp.2d at 536. At the outset, the court must determine, pursuant to Fed.R.Evid. 104(a), whether the expert is proposing to testify to (1) scientific knowledge that (2) will assist the trier of fact to understand or determine a fact in issue. Id. at 536-37 (citing Daubert, 509 U.S. at 592). Although not required in all cases, the Third Circuit has stressed the importance of holding Daubert hearings to determine the qualifications of the expert and the reliability of his or her testimony. Crowley, 322 F.Supp.2d at 537 (citing Padillas v. Stork-Gamco, Inc., 186 F.3d 412, 417-18 (3d Cir.1999)). The ultimate decision of whether to hold a hearing rests within the discretion of the district court. Padillas, 186 F.3d at 418. In a Daubert hearing, the party seeking to introduce the expert bears the burden of establishing admissibility by a preponderance of the evidence. Crowley, 322 F.Supp.2d at 537 (citing Daubert, 509 U.S. at 592 n. 10).

D. Daubert analysis

In its motion for summary judgment, Defendant challenges the admissibility of the testimony of Plaintiff’s engineering expert, Severt. Defendant argues that the effect of a Daubert analysis on Severt’s proposed testimony will result in the exclusion of such testimony, and that as a result, Plaintiff’s products liability claim against Defendant fails. Defendant contends that Severt’s methodology and conclusions - that the rear entry, stand-up forklift should have a rear latching door and stay-in-the-truck warning - are unreliable, and that the limited testing Severt has performed does not properly “fit” with the facts of this case.

1. Sevart's qualifications⁴

Sevart has a Bachelor's degree and Master's degree in mechanical engineering and has completed course work for a Doctor of Science degree in controls engineering, which is "a hybrid of mechanical engineering, electrical engineering, statistics and electrical hardware." Transcript of July 7, 2005 Hearing, ("Tr.") 6:21-7:12. Sevart has been a licensed engineer for approximately 30 years and has taught mechanical design classes at Wichita State University for 20 years. Tr. 7:13-23. Sevart is a member of the American Society of Mechanical Engineering, the American Society of Agricultural Engineering, the National Society of Automotive Engineering, and the American National Standards Institute ("ANSI"), a non-profit organization that oversees the writing and distribution of various U.S. industry standards, which until recently included forklift safety standards. Tr. 8:15-25.

Sevart has personally investigated over 600 forklift accidents involving all types of forklifts. Tr. 31:6-10. However, he is not a statistician, an expert in biomechanics as a science, or an expert in human factors as a science. Tr. 86:9-20. In fact, during the hearing, Sevart stated that Plaintiff's attorney should retain a biomechanical engineer to reconstruct the dynamics and kinematics of the accident at issue in this case, because he is not "an expert in that area." Tr. 122:13-123:4, 123:23-124:7.

In light of Sevart's own admission that a biomechanical engineer is needed to reconstruct and understand the accident, even when liberally construing the Daubert qualification requirements, the Court finds that Sevart is not qualified to offer testimony as to the dynamics of this particular

⁴ At the Daubert hearing, Defendant also raised questions regarding Sevart's qualifications. See Tr. 5:7-6:5. Although Defendant does not specifically discuss Sevart's qualifications in its motion for summary judgment, the Court will nevertheless address the issue since an expert's qualifications are part of the Daubert analysis.

accident or the forces acting on Plaintiff at the time of such accident.

2. Reliability

According to Severt, stand-up forklift operators are safer staying in the operator compartment during a tip-over than jumping out of the compartment. Severt also contends that the stand-up forklift that caused Plaintiff's injuries was defective because it did not have a self-latching rear door to the entrance of the operator's compartment and a stay-in-the-truck warning inside the compartment. Pl. Opp. at 1. Defendant, on the other hand, argues that Severt's testimony should be excluded on Daubert grounds because of the lack of relevant testing and the unreliable methodology employed by Severt in connection with the formulation of his opinion. Although it has been held that each Daubert factor need not be applied in every case for an expert's testimony to be admissible, see Crowley, 322 F.Supp.2d at 535 (citation omitted), an expert must have 'good grounds' for his opinion, and in the case of alternative designs, testing is crucial. See Dhillon v. Crown Controls Corp., 269 F.3d 865, 870 (7th Cir.2001) (citations omitted). Here, Severt has never performed any dynamic testing with a moving forklift, either with a dummy or human, nor has he done any computer simulations to test his proposed rear door alternative design and stay-in-the-truck theory with the Yale forklift model at issue in this case. Def. Mot. Summ. J. at 5. In fact, Severt himself acknowledged that he did not perform any tests with a stand-up forklift, with or without a rear door, in a lateral tip-over, which is the type of accident at issue in this case. Tr. 64:12-18. Severt also admitted that he did not conduct any analysis or tip-over tests using the particular Yale model forklift that Plaintiff was operating at the time of the accident. In fact, Severt never saw or operated the Yale model forklift involved in Plaintiff's accident. Tr. 31:11-17, 32:19-23.

In forming his opinion, Severt relied heavily on the Crown Accident Reports, which consist

of 804 accident reports collected over a 15 year period by Crown, a forklift manufacturer. Tr. 33:1-6, 34:14-21. However, Severt could not confirm that a single one of these reports was completed by a representative of Crown. Instead, each report was completed by someone at the scene of the accident who did not work directly for Crown. Tr. 84:14-85:9. Moreover, Severt admitted that he accepted the contents of the documents provided by Mr. Dunlap, a Crown employee, without investigating exactly what happened in any of the accidents or how the severity of injuries was determined. Tr. 85:10-24. Furthermore, Severt made no attempt to correlate Plaintiff's accident to the Crown accidents in order to determine if any of the 804 accidents involved a substantially similar or identical forklift to the Yale forklift model involved in this case. Tr. 99:17-24.

The most troubling aspect with the reliability of the Crown data is that Severt did not use any methodology or analysis to reach his conclusion regarding operator safety in forklifts. According to Severt, Crown did not conduct any statistical analyses or inquiries to assess the validity or reliability of the accident reports. Tr. 46:15-18. Severt even testified that there is no conclusion to be drawn from these tables of Crown accident reports, but rather, that the reports merely show a statement of fact; namely "[t]hat the operator is better protected by staying in the confines of the forklift than if he tried to jump." Tr. 47:9-19. For example, Table 7.2 of the Crown Stand-Up Forklift Accident Reports ("Report") compares the severity of injury sustained by forklift operators during tip-over accidents with the various actions taken by such operators - either "Ejected," "Jumped," "Jumped/Ejected," "Stayed," or "Unknown."⁵ Pl. Opp. Ex. 4 at 20. According to this

⁵ Of those operators who were "ejected" from the forklift, 2 operators sustained no injuries, 4 sustained minor injuries and 2 suffered major injuries. Pl. Opp. Ex. 4 at 20. Of those operators who "jumped" from the forklift, 1 was fatally injured, 4 sustained major injuries, 6 sustained minor injuries and 52 sustained no injury. Id. The one operator who "jumped/ejected" from the forklift received a major injury. Id. Of those operators who "stayed" in the machine, 11 sustained minor injuries, 15 suffered no injury, and 3 were unknown. Id. The Report also contained an "Unknown" category where 18 operators sustained no injury, 5 suffered minor injuries and 3 were

table, 8 operators were ejected, 63 jumped, 1 jumped/ejected, 29 stayed and 26 were unknown. Id. The Report shows that the only category of operators who sustained a fatal injury were those operators who “jumped” from the forklift. Id. In every other category, a number of operators sustained minor or no injuries, except for the one operator who sustained a major injury when he “jumped/ejected” from the forklift. Id. In light of this data, the Court repeatedly asked Severt what statistical analysis he performed to account for the fact that there were substantially more operators who jumped from the forklift than stayed in the operator compartment. Severt merely responded that the data did not reflect “a sophisticated analysis,” Tr. 50:21-22, and that he did not conduct any technical, statistical, or mathematical analyses with respect to such data. Tr. 50:1-18.

Because a layperson could easily read raw numbers in a chart and formulate some sort of conclusion regarding such numbers, the Court directed Severt to a chart in the Report where there appeared to be some breakdown of the numbers with respect to lateral tip-overs of forklifts. Tr. 55:14-56:5. This chart shows the type of injury the operator suffered during a side or lateral tip-over, based on whether the operator “stayed” in the forklift or performed some “other” act during an accident. See Pl. Opp. Ex. 4 at 22. However, the chart does not specify those operators who jumped or were ejected from the forklift.⁶ See id. After addressing the discrepancy in numbers, the Court again asked Severt about the methodologies he employed to reach his conclusion. Severt merely responded that there was “no specific mathematical model created. It’s simply the numbers

unknown. Id.

⁶ Of the 82 total incidents, 60 operators suffered no injury. In these 60 incidents, 11 operators stayed in the forklift and 41 came out of the forklift; however, the actions of 9 operators were unknown. See Pl. Opp. Ex. 4 at 22. Furthermore, the chart shows that out of the 16 operators who suffered minor injuries, 8 stayed in the forklift and 4 came out; however, the actions of 4 operators were not accounted for. Id. There were 2 major injuries and 1 fatality, all suffered by operators who came out of the forklift. Id.

themselves were compared.” Tr. 55:14-56:15.

“[A] proffered expert witness . . . must possess skill or knowledge greater than the average layman” Elcock, 233 F.3d at 741 (citing Waldorf, 142 F.3d at 625 (citations omitted)); see also Paoli, 35 F.3d at 741. Severt’s simple review of the numbers in the chart, which does not incorporate any kind of statistical or mathematical analysis, offers no substantial support for his opinion that operators are safer staying inside a forklift rather than jumping out during a lateral tip-over, and that a stand-up forklift should come equipped with a rear door and a warning. It is clear from Severt’s testimony during the hearing that he employed no special skill or technique different from a layperson in forming his opinion and conclusions regarding forklift safety. Severt did not use any methodology to account for the difference in the number of operators who jumped from the forklift versus those who remained in the operator compartment during a tip-over.

Similarly, Severt’s “tests” with forklifts are unreliable and unhelpful for numerous reasons. In 1992, Severt re-created accident tip-overs with a stand-up forklift truck using a live subject (the “Berry Test”). See Pl. Opp. at 6; Ex. 7. However, there are several crucial differences between Plaintiff’s accident and the simulated tip-overs. First, the Berry test was performed using a Yale forklift different from the one at issue in this case, and it was equipped with a rear door. Second, the simulated accident was a rear tip-over, not a lateral tip-over which caused Plaintiff’s injury. Third, Mr. Berry, the test subject and senior engineer with Severt’s company, remained inside the operator compartment during the tip-over and was equipped with a helmet and the knowledge that a tip-over was imminent. Finally, handholds were added in the forklift’s operator compartment to enable Mr. Berry to better restrain himself during the tip-over. See id. Ex. 7 at 2-3; Tr. 105:6-14. In short, the Berry Test bears little resemblance to the facts here or even the type of forklift at issue

in this case.

The Court also finds Severt's fatigue and reaction time tests unreliable. The fatigue test analyzed the impact of a forklift's latching door on an operator who opened and closed such door 100 times in a short period of time. See Pl. Opp. Ex. 6 at 1. However, there is no information available as to the age, experience, physical strength, or general health of the test subjects. The only information available was that the subjects consisted of 4 men and 1 woman. Id. Without providing any kind of analysis, Severt concluded that "[a] subjective test of the rear door indicates that the provision of a latching rear door on a standup, rear entry, end control forklift does not provide any increase in fatigue or have undue tiresome effects of the forklift." Id. Even if this conclusion were proven valid, it provides no support for Severt's conclusion that remaining inside the operator compartment is safer than jumping out of the forklift during a lateral tip-over.

The same problems of reliability exist with Severt's reaction time tests. In 1991, Severt conducted a study to assess the reaction time of eight male test subjects when exiting a stand-up forklift, both with and without a rear door. See Pl. Opp. at 7; Ex. 5. Severt reported that there was a .5 second increase in exit time with a door; an increase which he considered to be minimal. Id. at 7. However, similar to the fatigue tests, Severt did not include any information on the age, experience, physical strength, or general health of the test subjects.

Furthermore, during the Daubert hearing, Severt had great difficulty recalling the specifics of his tests, including the subjects involved in such tests and the manner in which those tests were conducted. See Tr. 20:4-11; 26:8-27:15; 44:17-47:14; 61:18-62:19. Severt also appeared confused by the Court's repeated requests to him to clarify whether he performed any kind of analysis of tip-over accidents which showed that an operator is safer remaining inside a forklift. See Tr. 44:17-

47:14.

Moreover, disparaging the science of testing and accident reconstruction, Severt opined that without live human subjects, all accident reconstructions are “bogus” and akin to “reading tea leaves.”⁷ Tr. 141:14-23. The Court finds incredulous Severt’s position that there is no way to test and obtain reliable answers in the area of forklift safety and lateral tip-overs without using human subjects. See Tr. 136:2-23. While the Federal Rules of Evidence do not have specific provisions governing the admission of computer-generated simulations, reconstruction and animation as substantive evidence, such computer-generated evidence has long been accepted as an appropriate means to communicate complex issues to a lay audience, so long as the expert’s testimony indicates that the processes and calculations underlying the reconstruction or simulation are reliable. See 57 Am. Jur. Proof of Facts 3d 455 (2005). To restrict accident reconstructions to those involving only human test subjects not only places such individuals in physical danger but also is a further indication of the unreliability of Severt’s methodologies and opinions.

In addition to the unreliability of tests conducted by Severt, the testimony and evidence presented at the Daubert hearing demonstrate that Severt’s conclusions regarding operator safety in a forklift tip-over accident are not generally accepted by others in the relevant scientific/expert community. The Crockett report, a 1995 study on operator safety in stand-up forklifts by Jennifer Crockett, a biomechanical engineer, and David Miller, a product safety engineer, which Plaintiff submitted to the Court, see Pl. Opp. Ex. A, and which Severt relies upon to support his opinion, see

⁷ “The Court: ... Mr. Severt, ... it is your scientific view that in any accident, only real live people are the only way you can really test. Everything else out there in the accident reconstruction field, or elsewhere, is really bogus because if you are not using a live person in accidents, you can’t get the real results?”

Severt: I would say that’s a pretty good description. I personally equated it as to reading tea leaves before I quit doing it.” Tr. 141:14-23.

Tr. 66:2-23, actually supports Defendant's position because the Crockett report shows that any device, such as a latching door, which slows or prevents an operator's egress in an emergency situation, such as a tip-over or off-dock accident, creates an unacceptable risk of severe injury or death. See Tr. 90:11-24; Pl. Opp. Ex. A at 113. The report also states that although a rear door may save "the loss of a foot or leg," it is at the expense of death when the truck is tipped over or driven off the dock. Pl. Opp. Ex. A at 113. Moreover, the Occupational Safety & Health Administration instructs operators to exit stand-up lift trucks in the event of a tip-over. See Def. Mot. Summ. J. at 8. In addition to the fact that the entire lift truck industry adheres to the opposite view of Severt, Severt's rear door theory has been rejected twice by ANSI.⁸ Tr. 100:20-101:13. In fact, no forklift manufacturer offers a stand-up forklift with a rear door as standard equipment. Tr. 95:8-96:11.

Severt's methodology has also been extensively questioned in another circuit. In two Seventh Circuit cases, Severt was retained to explain how certain forklifts were improperly designed because they lacked latching rear doors. See Dhillon, 269 F.3d 865; Phillips v. The Raymond Corp., 364 F.Supp.2d 730 (N.D.Ill. 2005). In Phillips, the court found that Severt's tests, which had been previously criticized in Dhillon, "did not include any testing to indicate whether his design would be feasible, and he never created or tested a prototype or other tangible demonstration of his design." Phillips, 364 F.Supp.2d at 738. Similarly, in this case, there is no peer review or publication of Severt's methods, and the complete lack of methodology behind his conclusions indicates that his testing is unreliable.

During the hearing, the Court frequently asked Severt which test he was referring to and

⁸ In the last 15 years, ANSI has twice rejected Severt's proposed rear door design. Each time there was a vote with respect to such proposal, Severt's design only received a vote of 1 or 2 - one vote coming from Mr. Berry, a chief engineer with Severt's company, who was instructed to vote in Severt's favor. Tr. 100:20-101:21.

relying upon, because much of what he opined was unsupported by the studies and tests that Plaintiff had submitted to the Court. See Tr. 138:22-139:16. Severt stated that he relied only on the Crown Accident Reports, the Berry test, the fatigue test, and the reaction time test to form his opinion. See Tr. 139:20-141:2. Given the complete lack of testing Severt conducted with stand-up forklifts in lateral tip-overs and his inability to provide a basis for the conclusions in his own charts and findings, it is highly doubtful that Severt's testimony would be helpful to a jury in determining whether the design of Defendant's forklift was defective.

Therefore, Plaintiff has failed to meet his burden of establishing the admissibility of Severt's testimony by a preponderance of the evidence, and Severt's proffered testimony - that operators are safer remaining in a forklift during a tip-over and that a stand-up forklift should come equipped with a latching rear door - is, at best, mere speculation unsupported by sound scientific principles and methodologies.

3. Fit

Severt has also not demonstrated a relevant connection between his research and Plaintiff's claim that the design of Defendant's forklift was defective. Severt never conducted any tests with the Yale forklift model at issue in this case. In fact, he never even saw the particular forklift involved in Plaintiff's accident. See Tr. 31:11-17, 32:19-23. In addition, Severt has not performed any lateral tip-over testing with forklifts, which is the kind of accident that caused Plaintiff's injuries. The only relevant "testing" Severt has performed is his review of lateral tip-overs using the data in the Crown Accident Reports. See Tr. 64:12-18; see also Oddi, 234 F.3d at 158 (excluding expert opinion in defective design case where expert conducted no tests and failed to calculate forces on plaintiff or truck in accident); Kass v. West Bend Co., 2004 WL 2475606, at * 6 (E.D.N.Y. Nov. 4,

2004) (stating that “[c]ourts have repeatedly rejected expert testimony where a proposed theory or alternative design was not properly tested.”) (citations omitted). Furthermore, Severt has not performed any new tests or analyses to determine how Plaintiff was allegedly ejected from the forklift and pinned beneath the machine’s overhead guard. It is this Court’s responsibility to evaluate whether the expert properly applied accepted principles and methods to the facts of the case. Magistrini, 180 F.Supp.2d at 595. Clearly, Severt has not done so here.

Therefore, Severt’s testing does not “fit” with the facts of this case. There is too great an analytical gap between the data and his opinion that the design of Defendant’s forklift was defective. Many of the tests which Severt relies on, such as the fatigue and reaction time tests, do not address a crucial fact in dispute here - whether the Yale model forklift that injured Plaintiff was defective in design. Because Severt’s conclusion regarding forklift design and operator safety is merely unsupported speculation, the Court concludes that his testimony will not be helpful to a jury and is therefore inadmissible.

E. Summary judgment

“Where the allegedly defective product involves a complex instrumentality, a plaintiff is required to provide expert testimony.” Lauder, 368 N.J.Super. at 331 (citation omitted). Such testimony “is needed in order to help the fact-finder understand ‘the mechanical intricacies of the instrumentality’ and help to exclude other possible causes of the accident.” Rocco, 330 N.J.Super. at 341 (citation omitted); see Jimenez, 286 N.J.Super. at 547; Sparrow v. La Cachet, Inc., 305 N.J.Super. 301, 304-05 (App. Div. 1997). The instrumentality at issue in this case, a forklift, is a complicated piece of equipment that consists of many intricate mechanical parts. Therefore, a jury would not be able to simply look at its design and determine whether or not it was defective. Rather,

an expert's testimony is necessary to assist the jury in understanding the complex safety issues involved in forklift design and lateral forklift tip-over accidents. See Torres v. Schripps, Inc., 342 N.J.Super. 419, 430 (App. Div. 2001) (stating that "expert testimony is needed where the factfinder would not be expected to have sufficient knowledge or experience and would have to speculate without the aid of expert testimony.") (citing Kelly v. Berlin, 300 N.J.Super. 256, 268, 692 A.2d 552 (App. Div.1997)). In this matter, expert testimony would also show the jury how Plaintiff's accident more likely than not was attributable to the forklift's defective design. See Lauder, 368 N.J.Super. at 1277 (stating that an explanation of various design criteria is necessary in order to prove existence of a defective design). Without Severt's testimony, however, Plaintiff will be unable to present evidence with respect to alternative forklift designs and theories of forklift operator safety and thus unable to show that Defendant's forklift was defective in design. Furthermore, without expert testimony, a jury can only speculate as to whether a design defect proximately caused Plaintiff's injuries. "The mere occurrence of an accident and the fact that someone was injured are not sufficient to demonstrate a defect." Lauder, 368 N.J.Super. at 1277 (citing Scanlon, 65 N.J. at 591). Here, Plaintiff's inability to present evidence regarding the alleged design defect and whether such alleged defect was the proximate cause of his injuries is a fatal flaw to Plaintiff's burden of proof. The Court notes that it is not merely concerned with the weaknesses or shortcomings of Plaintiff's case. Rather, the question is whether Plaintiff has met the essential elements of a products liability claim based on design defect. Without Severt's testimony, Plaintiff cannot meet his burden of proof and thus does not have a viable products liability claim against Defendant.

III. CONCLUSION

For the foregoing reasons, Defendant's motion to strike the testimony of Plaintiff's expert, John B. Severt, and motion for summary judgment are granted. The Court will issue an appropriate Order.

Dated: August 24, 2005 _____ /s/ Freda L. Wolfson
_____ Honorable Freda L. Wolfson
United States District Judge